



15th Year Evaluation
National Space Grant College and Fellowship Program
Program Performance and Results (PPR) Report Guidelines

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I. Introduction

A key component of the 15th Year Evaluation is the opportunity for you and your consortium members to clearly demonstrate the overall impact of your consortium in your state and to NASA. The Program Performance and Results (PPR) Report should provide credible evidence of the value added by forming the consortium. The PPR Report demonstrates collaborative participation by all consortium members in an analysis and synthesis of the past five years (1998-2002). It incorporates program (CMIS) and other appropriate data sources. The PPR Report is more than simply the aggregation of the activities that have occurred; the collaborative report should clearly demonstrate the collective strength of your consortium.

A well-written report will synthesize the past five years for each of the sections below, focusing on major themes and trends. It is important to provide a discussion of your consortium's strengths and weaknesses, and improvement actions you have implemented. You should avoid a year-by-year, program-by-program, project-by-project, or affiliate-by-affiliate recitation of accomplishments.

Throughout the report, you should identify and discuss, as appropriate, any issues and special circumstances within your state.

Your report should contain the following sections:

- A. Title Page
- B. Table of Contents
- C. Executive Summary and Consortium Impact
- D. Introduction
- E. National Program Emphases
 - 1. Diversity
 - 2. Competitiveness
 - 3. NASA Ties
 - 4. Industry Relations
 - 5. State Government Involvement
- F. Program Elements
 - 1. Consortium Management
 - 2. Fellowship/Scholarship
 - 3. Research Infrastructure
 - 4. Higher Education
 - 5. Precollege Education
 - 6. Public Service: General Public & External Relations
- G. Statement of Consortium Concurrence

The National Program Emphases (Section E) and the Core Criteria specified in each Program Element section (Section F) are based on Space Grant legislation, national program objectives, and the Space Grant Strategic Plan 1996-2000 (Section VII. Source Documents). These Emphases and Core Criteria are the minimum set of expectations

communicated to all consortia. If your program addresses other focus areas (based on your consortium's strategic plan, goals, or objectives, or elective elements from the Space Grant Strategic Plan) they should be presented in the Description section and accomplishments addressed in the Impact/Results section of the appropriate Program Element.

II. General Information

Throughout this document, we have used commonly accepted terminology and generic terms. For example, "affiliates" refers to the universities, industries, governmental institutions, and other organizations that are reflected in the CMIS Contacts list or the National Directory of Space Grant Contacts.

III. Contents of the Program Performance and Results Report

A. Title Page

Include the name of Consortium, and the name, address, telephone, fax, and email address of the Director.

Length: 1 page

B. Table of Contents

Length: 1 page

C. Executive Summary and Consortium Impact

Summarize the impact of the consortium in your state and to NASA over the past five years (1998-2002) and highlight the important or significant accomplishments of the consortium

Length: no more than 2 pages.

D. Introduction

Provide introductory information about your consortium including your strategic plan, mission, goals, and objectives as derived from the national program guidance, and analyses of your state's needs. This section should include a description of the unique mix of Program Elements (Section F below) in your consortia.

Length: no more than 3 pages.

E. National Program Emphases

From its inception, certain emphases have remained constant throughout the Space Grant Program and form the foundation of what makes Space Grant unique. Briefly describe how your consortium incorporated each of these cross-cutting national program emphases into your program and include statements of major accomplishments. Detailed discussions of implementation should be included in the appropriate Program Element section (Section F below). There is

no expectation that all of these five emphases will be addressed in every Program Element.

Length: ½ page per emphasis area; no more than 3 pages.

1. Diversity – recruitment and/or participation of women, underrepresented minorities, and persons with disabilities throughout all aspects of your consortium.
2. Competitiveness – accessibility by a wide field of applicants and established review processes to select the most qualified individuals.
3. NASA Ties – relationships that have been established with NASA Centers and Enterprises for the purposes of implementation, coordination, communication, or dissemination.
4. Industry Relations – relationships with private industry that have been established to increase the effectiveness of Space Grant programs through sharing of resources, including funds, facilities, and personnel expertise.
5. State Government Involvement – relationships that have been established with state government for the purposes of implementation, coordination, communication, or dissemination.

F. Program Elements

- For each of the following elements, a set of CMIS data tables have been provided on the 15th Year Evaluation website. Your responses in these areas should include a thoughtful analysis and interpretation of these data.
- If your consortium has not conducted programs in a Program Element area, you must clearly articulate your reasons for this approach, most especially citing your consortium's strategic plan, goals or objectives as the basis.
- Length: no more than 20 pages

1. **Consortium Management**

Description

Describe the significance of your consortium's management structure and operational policies and procedures. Include discussions of your consortium's decision-making and policy-making processes, and self-assessment and evaluation approach. This section should provide evidence of collaborative participation by all consortium members in the development of the Program Performance and Results Report.

Core Criteria

Discuss and cite examples of the strengths and weaknesses of your management structure, operational policies and procedures, and any actions you took to improve them.

Your response should include (but is not limited to) the following elements:

- Consortium Operations
- Resource Management
- Consortium Structure/Network
- Collaborations and Partnerships Outside the Consortium

Consortium Operations

- Office space and facilities (exclusive to your consortium) - include size, campus location, type of facility, use of space, phone contact. Also, additional facilities or space available for Space Grant program use.
- Staffing levels at the lead institution and support provided to others by the program (FTEs for director, program coordinator, support staff, affiliate representatives, etc.).
- Composition, role/purpose, and meeting frequency of Advisory/Executive Committee(s)/Boards (i.e. internal and external groups).

Resource Management

- Matching Funds and Leverage – analysis of trends, and sources and amounts of matching funds;
- Allocation of funds among affiliates – discuss your strategy, and strengths and weaknesses of your approach;
- Management expenses/administrative costs – discuss your strategy, and strengths and weaknesses of your approach;
- Allocation of funds across program elements – analysis of trends in distribution.

Consortium Structure/Network (Internal)

- Affiliates – number, characteristics, effectiveness;
- Campus/organization representatives -- on-campus effectiveness, communication of the program to their constituents, their success in building a NASA presence at their location, participation and involvement in consortium operations;
- Diversity – participation and inclusion of women, underrepresented minorities, persons with disabilities, and minority institutions in the management and decision-making structure of the consortium.
- Communication – vertical and horizontal within the network;
- Policy for adding and dropping affiliates/consortium members;
- Coordination between and cooperation amongst affiliates;
- Meetings – frequency, purpose, outcomes (including statewide annual conference).

Collaborations and Partnerships Outside the Consortium

- Collaborations and partnerships - number, characteristics, effectiveness;
- Examples include partnerships and collaborations with other Space Grant Consortia;
- NASA;
- Other governmental and non-governmental national/state/local entities.

Impact/Results

Describe how your network, management structure, and operational policies and procedures influence the accomplishment of your consortium's goals and objectives.

2. Fellowship/Scholarship Program

Description

Describe your Fellowship/Scholarship Program including: purpose, goals, objectives, program characteristics, percentage of consortium budget, assessment, and evaluation.

Core Criteria

Demonstrate how your program:

- has met the diversity objectives of the National Space Grant College and Fellowship Program in reference to awards to underrepresented minorities and women relative to either or both of the following for your state: 1) college and university enrollment statistics, 2) census data. Cite the source of your data reference point. Your response must include a description of your efforts to recruit these targeted groups and how you gauge success;
- has competitively awarded fellowships and scholarships. Your response should include a discussion of recruitment of applicants, selection of awardees, and distribution of awards among the affiliates;
- has supported both graduate and undergraduate students;
- for undergraduate students has contained effective student research and mentoring components;
- has had effective student research and mentoring components with NASA field centers and industry.

Impact/Results

Provide credible evidence of the impact that your Fellowship/Scholarship Program has had within your state and relative to NASA. Your response should include:

- a discussion of the strengths and weaknesses of your program and actions you have taken to improve it;

- any external metrics that you have used to determine the success of your program and that demonstrate the impact of your consortium in the state (e.g. degrees conferred, workforce placement, continuation of formal education).

3. Research Infrastructure Program

Description

Describe your Research Infrastructure Program:

- Include your purpose, goals, objectives, program characteristics, percentage of consortium budget, assessment and evaluation;
- Include descriptions of your program that support any or all of the optional components listed under Space Grant Research Priorities in the 1996-2000 Space Grant Strategic Plan. (These include opportunities for not-yet-established faculty, coordination with other NASA programs, enhanced collaborations for faculty partnerships with NASA personnel, collaborations between research and non-research intensive faculty, activities linking academic and industry affiliates, and topical consortia.);
- Include a discussion of your strategy for recruitment and/or participation of women, underrepresented minorities, and persons with disabilities.

Core Criteria

Demonstrate how:

- your research infrastructure program incorporates collaboration or cooperation of two or more disciplines or fields of study;
- collectively, the activities of your research program align with the NASA Strategic Enterprises.

Impact/Results

Provide credible evidence of the impact that your Research Infrastructure Program has had within your state, relative to NASA and within the scientific community at large. Your response should include:

- a discussion of the strengths and weaknesses of your program and actions you have taken to improve it;
- how your funded research activities contribute to the development and maintenance of the research capability of organization(s) within your consortium, (e.g. funded activities such as seed funding, release time, research collaborations);
- any external metrics that you have used to determine the success of your program and that indicate the impact of your consortium (e.g. publications, presentations, patents, proposals won, curriculum changes).

4. Higher Education Program

Description

Describe your Higher Education Program:

- Include your purpose, goals, objectives, program characteristics, percentage of consortium budget, assessment and evaluation;
- Include descriptions of your program that support any or all of the optional components listed under Space Grant Education Priorities in the 1996-2000 SG Strategic Plan (These include development of interdisciplinary courses and curriculum including introductory courses, community college initiatives, development of instructional technology/tech transfer courses, enhancement of precollege teacher education, cooperative partnerships with informal education organizations);
- Include a discussion of your strategy for recruitment and/or participation of women, underrepresented minorities, and persons with disabilities.

Core Criteria

Demonstrate how your Higher Education Program:

- places an emphasis on undergraduate education;
- incorporates collaboration or cooperation of two or more disciplines or fields of study.

Impact/Results

Provide credible evidence of the impact that your Higher Education Program has had within your state and relative to NASA. Your response should include:

- a discussion of the strengths and weaknesses of your program and actions you have taken to improve it;
- any external metrics that you have used to determine the success of your program and that demonstrate the impact of your consortium in the state (e.g. new majors, new minors, curriculum development, electronic courses, number of participants, new degrees/programs, conferences).

5. Precollege Education Program

Description

Describe your Precollege Education Program:

- Include your purpose, goals, objectives, program characteristics, percentage of consortium budget, assessment and evaluation;
- Include descriptions of your program that support any or all of the optional components listed under Space Grant Education Priorities in the 1996-2000 Space Grant Strategic Plan (These include enhancement of precollege teacher education, cooperative partnerships with informal education organizations);
- Include a discussion of your strategy for recruitment and/or participation of women, underrepresented minorities, and persons with disabilities.

Core Criteria

Demonstrate how your Precollege Education Program:

- aligns with your state's science, mathematics, and technology education standards and existing state systemic reform efforts;
- places an emphasis on teacher preparation and development.

Impact/Results

Provide credible evidence of the impact that your Precollege Education Program has had within your state and relative to NASA. Your response should include:

- a discussion of the strengths and weaknesses of your program and actions you have taken to improve it;
- any external metrics that you have used to determine the success of your program and that demonstrate the impact of your consortium in the state (e.g. workshops, curriculum development, number of participants);
- a discussion of your role in the promotion of a strong science, mathematics, and technology education base within your state.

6. Public Service Program: General Public and External Relations

Description

Describe your Public Service Program – to include General Public and External Relations:

- Include your purpose, goals, objectives, program characteristics, percentage of consortium budget, assessment and evaluation;
- Include descriptions of your program that support any or all of the optional components listed under Space Grant Public Service Priorities in the 1996-2000 Space Grant Strategic Plan (These include establishing cooperative extension activities, cooperative partnerships with informal education partners, topical consortia, and increase public appreciation of NASA-sponsored research);
- Include a discussion of your strategy for participation and/or inclusion of women, underrepresented minorities, and persons with disabilities.

Core Criteria

Demonstrate how your Public Service Program:

- has promoted an understanding of science, technology, engineering, and mathematics (STEM) disciplines and the NASA mission through dissemination of information (e.g. newsletters, brochures, posters, websites, radio, TV).
- has stimulated an interest in STEM disciplines and the NASA mission through your program activities (e.g. public lectures, public courses, science fairs, seminars, cooperative extension, topical consortia).

Impact/Results

Provide credible evidence of the impact that your Public Service Program has had within the state to increase public interest in and understanding of STEM disciplines and the NASA mission. Your response should include:

- a discussion of the strengths and weaknesses of your program and actions you have taken to improve it;
- any external metrics that you have used to determine the success of your program and that demonstrate the impact of your consortium in the state (e.g. articles or features in media, recognition from outside sources).

[Note: Items A – F cannot exceed 30 pages.]

G. Statement of Consortium Concurrence

The designated representative from the lead institution (Director) and each affiliate must sign this document. This signature represents the affiliate's agreement with the contents of the PPR Report

IV. Format for the Program Performance and Results Report

- Your PPR Report must be no less than single-spaced, using standard size (8 1/2" x 11") paper, in no smaller than 12-point font with a minimum of 1" margins on all sides for each page. Use an easily readable font face (e.g. Geneva, Helvetica, Times Roman). All pages must be numbered.
- References to CMIS data tables are permitted. The 15th Year Evaluation website provides links to the appropriate CMIS tables with your consortium's data. You may refer to those tables by number and title in the body of your report rather than imbedding CMIS tables within your report. Reviewers will have access to your CMIS tables.
- All other information you wish reviewers to consider should be included in your PPR Report. It is not acceptable to refer reviewers to websites or other external sources for additional information or as evidence for your narrative. Appendices are not allowed.

V. Submission of the Program Performance and Results Report

- Your PPR Report and Statement of Consortium Concurrence must be submitted to the 15th Year Evaluation website by 4:30 p.m. Monday, October 20, 2003. In addition, the original and 1 copy must be received at NASA Headquarters by 4:30 p.m. Tuesday, October 21, 2003.

Send your package via express mail, commercial delivery, or courier, using this address:

Diane D. DeTroye
Associate Manager, Space Grant/EPSCoR Programs
Office of Education
Higher Education Division, Mail Code NH
Attn: Receiving and Inspection (rear of building)
NASA Headquarters
300 E. Street SW
Washington, D.C. 20024-3210

- The director of each consortium will receive a password and instructions regarding accessing and uploading the report and consortium concurrence to the website.

VI. Review of the Program Performance and Results Report

The Space Grant 15th Year Evaluation is using a 7-point Likert Scale to evaluate the Program Performance and Result (PPR) Reports. The reports will be rated on a continuum of “poor” to “excellent.” On the scale, one and two represent **poor**. Three, four, and five represent **good**. Six and seven represent **excellent**.

Four principles guide the scoring of the PPR Reports. These principles are:

- **Alignment**
- **Context**
- **Consistency**
- **Results**

Alignment refers to the consortium ability to demonstrate alignment with the Space Grant Strategic Plan, Legislation, and Program Objectives. There are clear statements on what each consortium should accomplish. *Each consortium will be evaluated on how well it delineates the state needs and aligns its programs with the national Space Grant program guidance.*

Context refers to an understanding of the resources a consortium dedicates to an area and evaluating the PPR Report within this context. For example, if a consortium dedicates 5% of their resources to Precollege education, it is not correct to compare their results to a consortium that dedicates 25% of their resources to precollege education. *Each consortium will be evaluated on how well it justifies the portion of its resources allocated to each program element.*

Consistency refers to alignment between what the consortium reports in the PPR Report and the CMIS data tables. The results the consortium reports in the PPR Report should be validated, where possible, by the data available in the CMIS tables. If a consortium reports achievements in a certain area and the CMIS data contradict this, the PPR Report statements may be questionable. *The PPR Report analyses and the CMIS Data should be consistent with one another.*

Results refers to the achievements of the consortium. What tangible results can the consortium demonstrate? The PPR Report and CMIS data should give evidence that the consortium is making important achievements in alignment with the focus placed on each area. *Each consortium will be evaluated on the level of results achieved relative to the resources allocated to each program element.*

Each area has a rubric associated with it that explains what guidelines to follow to designate a program as “excellent,” “good,” or “poor,” in each area. The table below provides a general template of how each program is rated.

<u>Evaluation Topic: [e.g. National Program Emphases: Diversity or Research Infrastructure Program: Core Criteria -- Alignment with NASA Enterprises]</u>		
<u>Associated CMIS Data: [list of specific CMIS data table(s), as appropriate]</u>		
<u>1</u>	Poor	Little or no evidence indicates that the consortium is meeting the goals of the evaluation topic. And/or, evidence is inconclusive because of contradictions between the data sources.
<u>2</u>		
<u>3</u>	Good	Evidence indicates that the consortium is meeting the goals of the evaluation topic. There is consistency between the data sources or there are minor inconsistencies.
<u>4</u>		
<u>5</u>		
<u>6</u>	Excellent	Evidence indicates that the consortium is excelling at meeting the goals of the evaluation topic. The evidence is conclusive because of the consistency between all data sources.
<u>7</u>		
<u>STRENGTHS</u>		
<u>WEAKNESSES</u>		

VII. Source documents

Space Grant Legislation

(<http://calspace.ucsd.edu/spacegrant/factsheet/charter.html>)

National Program Objectives

(<http://calspace.ucsd.edu/spacegrant/factsheet/charter.html>)

- Establish and maintain a national network of universities with interests and capabilities in aeronautics, space and related fields.
- Encourage cooperative programs among universities, aerospace industry, and Federal, state and local governments.
- Encourage interdisciplinary training, research and public service programs related to aerospace.
- Recruit and train U.S. citizens, especially women, underrepresented minorities, and persons with disabilities, for careers in aerospace science and technology.

- Promote a strong science, mathematics, and technology education base from elementary through secondary levels.

The NASA National Space Grant College and Fellowship Program Strategic Plan 1996-2000

(http://calspace.ucsd.edu/spacegrant/Strategic_Plan/Stratplan.html)

VIII. Glossary of Terms

Affiliate: Organizations/individuals listed in the National Directory of Space Grant Contacts, in the CMIS Contacts list, and/or those organizations/individuals recognized as being part of the state consortium.

Consortium Structure/Network: A true partnership with each affiliate clearly invested in and accountable for realizing the consortium goals and objectives. Affiliates who are committed to examining, and where necessary changing, organizational policies and practices to support new or innovative approaches.

Core Criteria: Derived from specific targets of the Space Grant program as communicated through one or more of the program documents.

Diversity: Women, underrepresented minorities and persons with disabilities.

Education Standards: National, state, and/or local benchmarks used to measure student achievement.

Impact/Results: The consequences of the program element. Both the intended benefits and unintended positive outcomes of the program. This section should address questions such as, “Why were the results of the program useful?”, “How did the projects affect individuals or groups in the state?”, “What kind of economic or policy consequence resulted from the program?” It includes credible evidence of accomplishments particular to that element.

Interdisciplinary: The incorporation, collaboration, or cooperation of two or more disciplines or fields of study.

Evaluation: Plans that adequately define, document, measure, and report on project progress, as well as credible evidence of what worked in a given context.

IX. Explanation of Grant Types

Designated Consortia

At least \$100,000 must be spent on graduate fellowships and undergraduate scholarships. As of 1998, the consortium can elect to raise this student award portion to up to \$125,000. The balance of the program funds should be used to conduct education, research, and public service activity in support of national program goals and priorities and in the context of state priorities. The focus of expenditures and effort varies according to the resources and needs identified in the state.

Program Grant Consortia

At least \$50,000 of the NASA funds must be spent on student awards, are exempt from the matching requirement and as of 1998, the state can elect to raise this minimum to up to \$65,000. The balance of the funds should be used to conduct education, research, and public service activities in support of national program goals and priorities and in the context of state priorities. The focus of expenditures and effort varies according to the resources and needs identified in the state.

Capability Enhancement Consortia

The main purpose for a capability enhancement grant is to develop space-related research infrastructure in the state and to provide funds for improvements in the quality of aerospace research and education. At least \$50,000 of the NASA funds must be spent on student awards, are exempt from the matching requirement and as of 1998, the state can elect to raise this minimum to up to \$65,000. In these consortia only, another \$25,000 of the remaining NASA funding does not require a match. The \$25,000 can be spent on faculty fellowships or other research infrastructure building activity. These states have been instructed to minimize precollege activities in order to concentrate resources on building their research infrastructure and improving the state's aerospace education base. The focus of expenditures and effort varies according to the resources and needs identified in the state.

Special Note re: EPSCoR-eligible states:

Performance within the EPSCoR programs is not the subject of this evaluation and should not enter into consideration by the reviewers. However, the *coordination* of Space Grant with NASA EPSCoR and other capability building programs in the state is an objective of the national program strategic plan.